Barry Castleman's DuPont File

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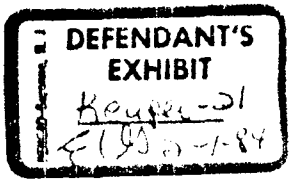
EMPLOYEE RELATIONS DEPARTMENT
Wilmington, Delaware

Copy to:

D. H. Dawson
Vice President

G. E. Holbrook
Vice President

May 20, 1966
File OH - 430



TO: GENERAL MANAGERS
CHIEF ENGINEER, ENGINEERING DEPARTMENT
DIRECTOR, CENTRAL RESEARCH DEPARTMENT
DIRECTOR, DEVELOPMENT DEPARTMENT

THRESHOLD LIMIT VALUES

On April 19, 1966, the MCA Board of Directors, upon recommendation of its Medical Advisory Committee, approved the attached policy statement concerning Threshold Limit Values. In it, member companies are urged to give favorable consideration to the establishment of surveillance facilities and related medical program as suggested in the statement.

The importance of Threshold Limit Values to the chemical industry lies in the fact that, as issued by the American Conference of Governmental Industrial Hygienists, they are intended to be unofficial guides to good industrial hygiene practice, but are now being adopted by an increasing number of states as legal limits of exposure of workmen. The engineering cost of compliance with such limits is such that the chemical industry has an economic interest in seeing that the Threshold Limit Values are valid, but not more restrictive than is necessary for the protection of the workers' health.

Our Company is doing a commendable job in protecting the health of its workers. It does this by establishing a priori engineering guides for safe exposure limits and through continued medical observation of the workers.

In general, it has not been necessary for the successful operation of this program to determine quantitatively the actual day-to-day exposure of the workers on the job. As a result, favorable Company experience can seldom be used to validate or refute a suggested numerical Threshold Limit Value.

The chemical industry can, if it wishes, have a positive influence on Threshold Limit Values, but only if it can relate quantitative exposure levels to effects or lack of effects through documented medical observations.

It would appear desirable for each department, in consultation with the Medical Division and Haskell Laboratory, to consider the expansion of its employee health program to include the accumulation of data on the levels of employee exposures to those atmospheric contaminants which may be significant in your operations.

Questions pertaining to this subject should be directed to Dr. J. A. Zapp, Jr., Extension 81-3771. Additional copies of this letter and the attachment may be obtained by calling Extension 81-3767.

G. G. MITCHELL, DIRECTOR

Attachment

POLICY STATEMENT

APPROVED BY MCA BOARD OF DIRECTORS -- April 19, 1966

THE SIGNIFICANCE OF THRESHOLD LIMIT VALUES TO THE CHEMICAL INDUSTRY

As defined by the American Conference of Governmental Industrial Hygienists, "Threshold Limit Values refer to airborne concentrations of substances and represent conditions under which it is believed that nearly all workers may be repeatedly exposed, day after day, without adverse effect." They say further, "The Conference does not consider the Threshold Limit Values appropriate matter for adoption in legislative codes and regulations, and recommends against such use." In spite of this last statement, an effort was made to incorporate Threshold Limit Values (TLV) as part of a code for safe operation by government contractors subject to the Walsh-Healey Act. There has been a persistent and increasing tendency by governmental agencies at various levels and by the courts to consider the TLV lists as regulations. In face of this, it is not unreasonable to expect that efforts will continue by certain individuals and groups to press for incorporation of TLV's into various codes.

Industry in general and the chemical industry in particular have a vital interest in ensuring that the TLV of a substance is factual and realistic because on the one hand industry has a real need for reliable guides to help achieve safe work environments and prevent illness, and on the other environmental control of a substance is costly and is disproportionately more expensive as established limits approach zero.

Threshold Limit Values are based upon the best available information from industrial experience, from experimental human and animal studies, and when possible, from a combination of these. In practice, the majority of limits are based upon observations derived from animal experimentation. It is seldom that valid observations on experience in humans is available even though this is by far the most desirable way to validate a TLV.

If the experience of workmen who use toxic substances is to have meaning in validating a TLV derived from animal experimental work, certain criteria must be met. The exposure of workmen must be defined quantitatively in terms of amount of contaminant and duration of contact, and the effect or lack of effect must be determined by appropriate medical and laboratory procedures. Medical services in industry may already have available significant numbers of observations on the health of workmen. In some cases the observations may be somewhat less than acceptable and in others they may be excellent. In most cases the medical information is useless in validating a TLV because quantitative data on environmental exposure levels is not available to support the medical observations.

Events of the recent past justify the prediction that TLV's will play a greater role in the regulation (direct or indirect) of industrial operations in the near-term future and that validation of TLV's will be of vital importance to industrial management. Therefore, the Medical Advisory Committee of MCA urges that member companies give serious consideration to establishing or expanding in-plant surveillance of environmental contamination by chemicals, and

that this be combined with an appropriate medical program to define the impact of the environment on the workmen. The data derived from such studies should, at an appropriate time, be considered for scientific publication or submission to the Committee on Threshold Limits of the American Conference of Governmental Industrial Hygienists to establish, support, or refute the value for any specific material.